Headquarters Air Combat Command

Integrating The Enterprise Across MAJCOMs

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17 Aug 2011

This Briefing is:
UNCLASSIFIED

Overview

- **Training Requirement**

- **V-C vs L-V-C**

- **CAF Issues**

- **Options**

Topic

- **Integrating the Enterprise Across MAJCOMs**

- **Assumptions:**
    - **Focus for now is on the "Virtual" piece**
    - **Solutions need to apply to "Live" also**
    - **Issues are relevant to joint and coalition but may be compounded**
    - **Focus here will be on items identified within CAF DMO**
    - **Pilot Project**

Define a Training Requirement

- **First questions that need to be asked are:**
  - **Who are the training partners**
  - **What is the training requirement**
  - **Is there a training benefit on all sides**
- **Examples:**
  - **Disproportionate balance between CAF C2 needs and fighters**
  - **CAF fighter/bombers & SOF JTACs**
  - **CAF C2 & Space or Joint**
  - **CAF fighter/bomber and Navy C2 (MAS)**
  - **CAF fighters & MAF**
  - **CAF & Coalition**
- **Enterprise Solution:**
  - **Work with MAJCOMs to determine training req'ts across MAJCOMs, Joint, and Coalition**

> *Premise that we need to connect just because we can is false and wasteful!*

Training Req't vs. Value

Cross MAJCOM LVC Matrix		Is There Training Value To _____?													
		MAF		CAF		Special Ops		Space		TACS (CAF)		JOINT		COALITION	
		Live	Virtual	Live	Virtual	Live	Virtual	Live	Virtual	Live	Virtual	LIVE	VIRTUAL	LIVE	VIRTUAL
MAF	Live	Yes	No	Yes	No	Yes	No	Yes	No						
	Virtual	No	Yes	No	Limited	Yes	Yes	No	No						
	Constructive	No	Yes	No	No	No	Yes	No	No						
CAF	Live	Yes	No	Yes	No	Yes	Yes (JTAC Only)	Yes	No	Yes	Yes	Yes	No	Yes	No
	Virtual	No	Yes	No	Yes	Yes (JTAC Only)	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes
	Constructive	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes

More Detail...

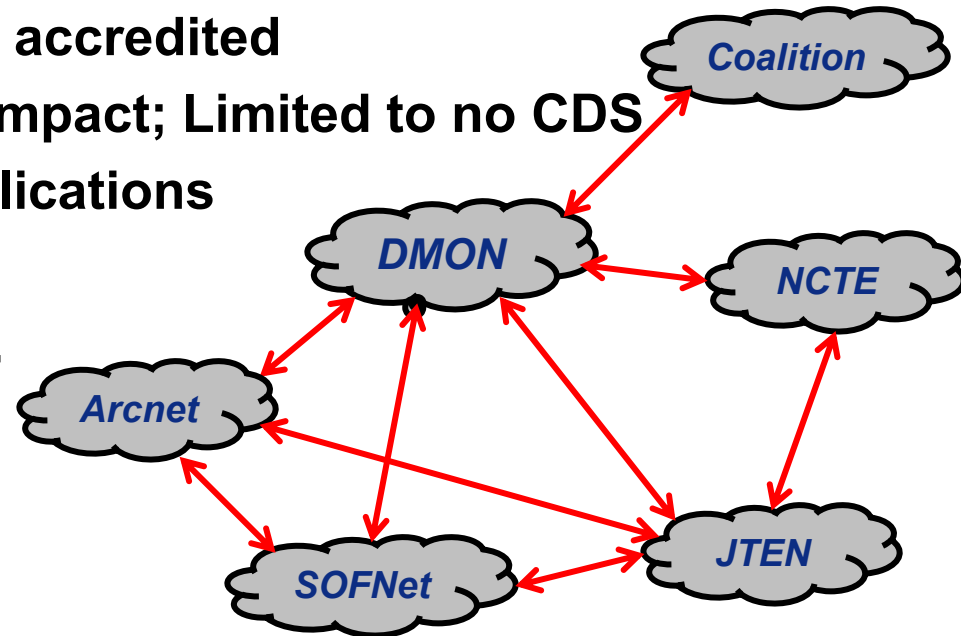| Cross MAJCOM LVC Matrix	Is There Training Value To _____?															
	MAF		CAF		Special Ops		Space		TACS (CAF)		JOINT		COALITION	
	Live	Virtual	Live	Virtual	Live	Virtual	Live	Virtual	Live	Virtual	LIVE	VIRTUAL	LIVE	VIRTUAL
AWACS (ACC) Live	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes
AWACS (ACC) Virtual	No	Yes	Yes	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes	No	Yes
AWACS (ACC) Constructive	No	Yes	No	Yes	No	Yes	No	No	No	Yes	No	Yes	No	Yes
CRC (ACC) Live	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes
CRC (ACC) Virtual	No	Yes	No	Yes	No	Yes	No	No	No	Yes	No	Yes	No	Yes
CRC (ACC) Constructive	No	Yes	No	Yes	No	Yes	No	No	No	Yes	No	Yes	No	Yes
JSTARS (ACC) Live	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
JSTARS (ACC) Virtual	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
JSTARS (ACC) Constructive	No	Yes	No	Yes	No	Yes	No	No	No	Yes	No	Yes	No	Yes
RJ (ACC) Live	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes
RJ (ACC) Virtual	No	Yes	Yes	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes	No	Yes
RJ (ACC) Constructive	No	Yes	No	Yes	No	Yes	No	No	No	Yes	No	Yes	No	Yes
MQ-1/9 Live	No	No	Yes	No	Yes	No	No	No	Yes	No	Yes	No	Yes	No
MQ-1/9 Virtual	No	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes
MQ-1/9 Constructive	No	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Fighters Live	Yes	No	Yes	Yes	Yes	Yes (JTAC Only)	Yes	No	Yes	Yes	Yes	No	Yes	No
Fighters Virtual	No	Yes	Yes	Yes	Yes (JTAC Only)	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes
Fighters Constructive	No	Yes	Yes	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Bombers Live	Yes	No	Yes	Yes	Yes	Yes (JTAC Only)	Yes	No	Yes	Yes	Yes	No	Yes	No
Bombers Virtual	No	Yes	Yes	Yes	Yes (JTAC Only)	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes
Bombers Constructive	No	Yes	Yes	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
HH-60/HC-130 Live	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
HH-60/HC-130 Virtual	No	Yes	Yes	Yes	No	No	No	Yes	No	No	No	No	No	No
HH-60/HC-130 Constructive	No	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No	No
ASOC/TACP Live	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ASOC/TACP Virtual	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ASOC/TACP Constructive	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
JTAC (ACC) Live	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
JTAC (ACC) Virtual	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
JTAC (ACC) Constructive	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

CAF Issues!

- **Connectivity:**
  - **DMON only – No issues once accredited**
  - **DMON to ARCNet – Minimal impact; Limited to no CDS**
  - **DMON to Xnet – Security implications**
    - **CAF uses DMOC as buffer**
  - **DMON to Coalition network…**
    - **5 eyes**
    - **Others**
- **Enterprise Solution:**
  - **Dictate one network!**
  - **Provide connectivity between existing networks (standards, security, policy, etc. issues)**

Coalition

DMON

NCTE

Arcnet

JTEN

SOFNet

Persistent or periodic?

DMON Accreditation

- **Lack of support**
- **Time to complete**
- **Changing ROE**
- **Enterprise Solution:**
  - **Single office for C&A**
  - **Standardized approach applicable to networked simulators and not just computers**
  - **Design templates to streamline and expedite process**

Standards and Standards Implementation

- **Standards required for persistent connectivity**
  - **Configuration Control**
  - **Fixed players for security reasons**
- **Standards need to be of sufficient detail to resolve integration issues and not just touch on the basics**
- **Implementation of standards is costly**
- **Integration testing is critical**
- **Enterprise Solution:**
  - **Develop AF Standards - only if required and where needed**
  - **Look at existing standards across MAJCOMs to determine shortfall, differences, or issues that would impact training**

Correlation

- **Databases: Overall training area boundaries**
- **High fidelity target areas: Specific areas to meet the needs of each platform**
- **Models (3D and flight): Visual 3D; Validated models; Realistic behaviors; Adequate for training)**
- **Enterprise Solution:**
  - **Determine database and model requirements**
  - **Provide datasets and models in common formats**
  - **Access to validated models that are usable by platforms at required levels**
  - **Push on SPOs to require use of Gov't provided information**

Simulator Capabilities

- **Different MDS have different sim requirements to meet training**
  - **CGFs, IGs, visual displays, entity count, etc.**
- **Dictating solutions drives cost and raises risk**

- **Enterprise Solution:**
  - **Assist with defining capabilities across MAJCOMs**
  - **Determine common formats or capabilities for industry us**
    - **E.g. Open flight models**
  - **Do not dictate tech solutions that have to be used**

Cross Domain Solution

- **Cross Domain Solutions**
  - **Required for varying capabilities**
  - **Keeping current is a big issue for CAF DMO**
  - **CAF DMO working toward a Common Mission Enclave (CME)**
- **Joint creates possible issues depending on classifications**
- **Coalition training further creates issues for IDS**
- **Foreign Exchange Officers and ITAR exemptions, TAAs**

- **Enterprise Solution:**
  - **Don't force Joint/Coalition training on MAJCOMs**
  - **Assist with ITARs and TAAs**
  - **Assist in CDS/IDS issues that will work in numerous events**

Suggested Enterprise Tasks

1. **Define training requirement**
   - **Why, how often, at what security level**
   - **By each MAJCOM platform**
2. **IA process**
3. **Dataset, models, etc. provided by Gov't**
4. **Threat Validation**
5. **CDS, IDS for Joint and Coalition**
6. **Standards**